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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,055	07/25/2003	Ryoji Suzuki	9792909-5648	2206
26263 7590 07/21/2008 SONNENSCHN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080				
EXAMINER				
TRAN, NHAN T				
ART UNIT		PAPER NUMBER		
2622				
MAIL DATE		DELIVERY MODE		
07/21/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/627,055

Applicant(s)

SUZUKI ET AL.

Examiner

NHAN T. TRAN

Art Unit

2622

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2008 and 08 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/8/2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claim 27 have been considered but are moot in view of the new ground of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishizawa et al. (US 5,122,881).

Nishizawa discloses a solid-state image sensor (Figs. 1 & 8 and abstract) comprising:

(a) unit pixels (Figs. 1 & 8), each of which has:

(i) a photoelectric conversion element (photodiode D1) for converting incident light into an electric signal charge, (ii) an amplifying element (amplifying transistor Q2) for amplifying said electric signal charge of said photoelectric conversion element and generating an electric signal, (iii) a reset element (reset transistor Q1) for resetting said photoelectric conversion element in response to a reset pulse (via line HL11), and (iv) a select switch (selection transistor Q3) for selectively outputting the electric signal from said amplifying element to a signal line (line V1) as a pixel signal (see Figs. 1 & 8 and col. 2, line 66 – col. 3, line 30);

Nishizawa further discloses (b) a vertical scanning circuit element (Figs. 1 & 8) operatively connected to said reset element (Q1 is connected to the vertical scanning circuit via line HL11) and said select switch (Q3 is connected to the vertical scanning circuit via line HL12) by separate signal lines (HL11 and HL12) and effective to generate and deliver said reset pulse and said select pulse (see col. 3, lines 8-21).

Nishizawa also discloses a horizontal scanning circuit (Figs. 1 & 8) but Nishizawa does not explicitly teach the claimed “a horizontal scanning circuit” that performs all operations as the vertical scanning circuit of Nishizawa as discussed above. However, it is obvious to one skilled in the art that the terms “vertical” and “horizontal” scanning circuits can be used *interchangeably* depending on a perspective view with respect to the circuit layout. In this case, the vertical scanning circuit in Nishizawa is obviously

recognized as a horizontal scanning circuit when the image sensor is viewed from the horizontal direction or rotated 90 degrees clockwise such that the vertical scanning circuit becomes the horizontal scanning circuit and vice versa.

Therefore, it would have been obvious to one of ordinary skill in the art to construct an image sensor that would use a horizontal scanning circuit operatively connected to said reset element and said select switch by separate signal lines and effective to generate and deliver said reset pulse and said select pulse instead of the vertical scanning circuit as an obvious variant or design choice from the disclosure of Nishizawa for imaging without departing from the scope of invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NHAN T. TRAN whose telephone number is (571)272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nhan T. Tran/
Primary Examiner, Art Unit 2622